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10/057,586	01/25/2002	D. Amnon Silverstein	1007518	2929

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EXAMINER	
CARBONELLO, MICHAEL J	
ART UNIT	PAPER NUMBER
2622	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/057,586	SILVERSTEIN, D. AMNON	
	Examiner	Art Unit	
	Michael Carbonello	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01/25/2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *1-25-02*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The Specifications were received on 1/25/2002. The examiner accepts these specifications.

Drawings

2. The drawings are objected to because in Figure 1, the Test Pattern [101] is labeled ambiguously. The number "101" is just pointing to open space; the first impression is that is pointing to the connection lines between Magnified view of the dynamic Patch Area [105] and Dynamic Test Patch Area [103]. The examiner suggests boxing and labeling whatever portion of figure1 is the Test Pattern [101], in the same way the Test Patch Area [103] is labeled and physically touching what is being disclosed.

3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Giorgianni et al.

5. Regarding claim 1, Giorgianni et al discloses in column 5, 40-46, column 10, lines 47-53, figure 6, and figure 7; "An apparatus for calibrating an output of an image output device, comprising, an image input device configured to image an output of said image output device, and a test pattern generator having an output of a dynamic test patch area and a grating area connected to an input of said image output device and responsive to said image input device for adjusting an intensity level of said dynamic test patch area to match an average intensity level of said grating area." Using the broadest reasonable interpretation the colorimetric value is a measure of color intensity. The Reflection Scanner [14] is a type of image input device and it is connected to an output device [34](figure 7). Lastly, the test images [46] would be a test patch area.

6. Regarding claim 2, Giorgianni et al discloses the methods and devices discussed above and further discloses in column 9, lines 27- 36 and figure 6; "wherein said test pattern generator additionally has an output of a fixed level area" Using the broadest reasonable interpretation the specified arrays of R, G, and B generated by the pattern generator displayed in the test images [46] and test colors could be viewed as a fixed level area.

7. Regarding claim 3, Giorgianni et al discloses the methods and devices discussed above and further discloses in column 6, lines 1-21; "wherein said test pattern generator is further configured to set said intensity level of said grating area and adjust said intensity level of said dynamic test patch area by setting pixel values of said grating area and said dynamic test patch areas." Using the broadest reasonable interpretation the adjustment of the various colorimetric values would be the ability to adjust the intensity level of the test area.

8. Regarding claim 4, Giorgianni et al discloses the methods and devices discussed above and further discloses in column 5, lines 61-65; "wherein said dynamic test patch area comprises a plurality of pixels of substantially equal intensity levels and said grating area comprises at least two groups of pixels, each group having a different, predetermined intensity level." Using the broadest reasonable interpretation specifying patterns of image forming values for producing colors which adequately sample and cover useful color ranges, and forming test colors using said image forming values would be a plurality of pixels of substantially equal intensity levels of at least two groups of pixels having different predetermined intensity levels.

9. Regarding claim 5, Giorgianni et al discloses the methods and devices discussed above and further discloses in column 6, lines 53-60; "wherein each of said two groups of pixels of said grating area are set to respective predetermined pixel values associated with said predetermined intensity levels." Using the broadest reasonable interpretation specifying the viewing environment in terms of illuminant spectral energy distribution, amount of flare light, surround type and white point chromaticities, could be viewed as setting the predetermined values based on the predetermined intensity levels.

10. Regarding claim 6, Giorgianni et al discloses the methods and devices discussed above and further discloses in figure 10, and in column 16, lines 22-25; "wherein said dynamic test patch area comprises an area of uniform pixel value and said grating area comprises a plurality of lines of pixels, a number of said lines of pixels having a first value and a second number of said lines of pixels having a second value different from said first value." Using the broadest reasonable interpretation the test images [64], and the test colors (label on the page in figure 10), could be viewed as a dynamic test area, with uniform pixel values. Further figure 10 clearly shows lines within the test images, and as it is known in the art, pixels are what compose the lines in image producing devices. Lastly because the various test colors are different from each other there would be a second line of pixels different from the first.

11. Regarding claim 7, Giorgianni et al discloses the methods and devices discussed above and further discloses in column 16, lines 30-35 and 1coulmn 6, lines 40-47; "wherein said test pattern generator is configured to control said uniform pixel value of

said dynamic test patch area to adjust said intensity level of said dynamic test patch to be equal to said average intensity level of said grating area." Using the broadest reasonable interpretation the monitoring of the colorimetric values for each test case, as well as the ability to adjust the amount of viewing flare could be viewed as a method where the dynamic test patch area is adjusted to the level of the average intensity of the grating area.

12. Regarding claim 8, Giorgianni et al discloses the methods and devices discussed above and further discloses in column 13 lines 63-67 through column 14, lines 1-6 and column 14, lines 19-23; "wherein said test pattern generator is further configured to associate a plurality of pixel values with corresponding pixel intensities, said grating area comprising pixels having a combination of at least two of said plurality of pixel values." Using the broadest reasonable interpretation the matching of the colorimetric values with the viewing environment. Further the use of R, G, and B exposure values being calibrated, and being created by the pattern generator would be associating a plurality of pixels corresponding to pixel intensities, having a combination of at least two pixel values.

13. Regarding claim 9, Giorgianni et al discloses the methods and devices discussed above and further discloses in column 5, lines 64- 67, through column 6, lines 1-21; "wherein said combination of at least two of said plurality of pixel values results in a new average intensity level of said grating whereby said test pattern generator is configured to adjust pixel values of said dynamic test patch to approximate said new average intensity level." Using the broadest reasonable interpretation the forming of test pattern

colors, determining the colorimetric values and then adjusting the colorimetric as needed, could be viewed as resulting in adjusting the pixel intensity level of the test area by the pattern generator.

14. Regarding claim 10, Giorgianni et al discloses the methods and devices discussed above and further discloses in column 5, lines 64- 67, through column 6, lines 1-21; "wherein said test pattern generator is further configured to adjust said level of said dynamic test patch area to match a plurality of predetermined average intensity levels of said grating." Using the broadest reasonable interpretation the forming of test pattern colors, determining the colorimetric values and then adjusting the colorimetric as needed, would be viewed as adjusting the test patch area to match the plurality of predetermined average intensity levels.

15. Regarding claim 11, Giorgianni et al discloses the methods and devices discussed above and further discloses in column 4,lines 23-40; "comprising a gamma corrector responsive to said test pattern generator to map a plurality of pixel values to corresponding pixel intensity levels." Using the definition of gamma as a measure of contrast in photographic images or the brightness of midlevel tones in an image and using the broadest reasonable interpretation the color management system, lateral brightness and general brightness, these could be methods or devices using a gamma corrector responsive to the test pattern generator.

16. Regarding claim 12, Giorgianni et al discloses the methods and devices discussed above and further discloses in column 1, lines 55-59 and column 2, lines 27-

31; "wherein said image output device include a video monitor and said image input device comprises a video camera."

17. Regarding claim 13, Giorgianni et al discloses the methods and devices discussed above and further discloses in figure 8; "wherein said test pattern generator is further configured to adjust an intensity level of said fixed level area to maintain a predetermined average intensity level of the output device." Using the broadest reasonable interpretation after the pattern generator [40] creates a test colors and test patch area the colorimetric measuring device [48], the viewing flare transform [50], the surround transition [51], the chromatic adaptation transform [52], and color metric conversion [54] would be a method to adjust the level of the color intensity as needed.

18. Regarding claim 14, Giorgianni et al discloses the methods and devices discussed above and further discloses in figure 6 and figure 7; "wherein said test pattern generator additionally has an output of a fixed level area and said dynamic test patch, grating and fixed level areas comprise areas displayed on a video display, said dynamic test patch and grating areas comprising areas of said video display substantially smaller than and located at a periphery of said fixed level area." Using the broadest reasonable interpretation the test pattern generator is able to out put test images [64] (figure 6), there is a clearly label video display [30], which be smaller and be located at a periphery of said level area(figure 7).

19. Regarding claim 15, Giorgianni et al discloses the methods and devices discussed above and further discloses in column 8, lines 24-27 and again in column 8, lines 43-48; "wherein said image output device include a printer and said image input

device comprises an optical scanning device." Using the broadest reasonable interpretation a reflection image scanner [14] would be a type optical scanning device.

20. Regarding claim 16, Giorgianni et al discloses the methods and devices discussed above and further discloses in figure 2 and figure 3; "wherein said test pattern generator additionally has an output of fixed level area and said dynamic test patch, grating and fixed level areas comprise areas minted on a medium, said dynamic test patch and grating areas comprising printed areas of said medium substantially smaller than and located at a periphery of said fixed level area." Using the broadest reasonable impetration, the test images [46] would be the fixed level area said dynamic test patch (figure 2). Further Figure 3 discloses and out put medium [36], which would be a print medium. Lastly the test colors could be printed areas of said medium substantially smaller and located at a periphery of said fixed level area.

21. Regarding claim 17, Giorgianni et al discloses the methods and devices discussed above and further discloses in column 5, lines 53-67 through column 6 lines 1-21 and figure 2; "comprising the steps of, generating a test pattern including a grating area and a dynamic test patch area, setting a configuration of pixels within said grating area to first and second predetermined pixel levels, adjusting a value of pixels within said dynamic test patch area to match an intensity level of said dynamic test patch area to an average intensity level of said grating area." Using the broadest reasonable interpretation the preferred embodiment as described by Giorgianni et al would provide a test pattern generator [40] (figure 2). The test images [46] would be a test patch area.

The methods of specifying, determining and adjusting the necessary colorimetric values would be configuring and adjust the intensity levels as required.

22. Regarding claim 18, Giorgianni et al discloses the methods and devices discussed above and further discloses in figure 2; "wherein said step of generating a test pattern further includes generating a fixed level area, said grating area and dynamic test patch area comprising smaller areas than, and embedded in, said fixed level area." Using the broadest reasonable interpretation the test images [46] show test colors with which could be a smaller area than the fixed level area and embedded within the fixed level area.

23. Regarding claim 19, Giorgianni et al discloses the methods and devices discussed above and further discloses in column 4,lines 23-40; "comprising repeating said steps of setting and adjusting to provide a gamma correction value." Using the definition of gamma as a measure of contrast in photographic images or the brightness of midlevel tones in an image, as was done above, and using the broadest reasonable interpretation the color management system, lateral brightness and general brightness, could be methods or devices using a gamma corrector responsive to the test pattern generator.

24. Regarding claim 20, Giorgianni et al discloses the methods and devices discussed above and further discloses in column 5, lines 53-67 through column 6 lines 1-21; "wherein said step of adjusting includes a step of measuring an average pixel illumination level of said grating area and a pixel illumination level of said dynamic test patch area." Using the broadest reasonable interpretation the illuminant spectral energy

distribution could be the pixel illumination level of the test patch area. Further the method of specifying, determining and adjust the various colorimetric values would be a method of measuring and adjusting the illumination level.

25. Regarding claim 21, Giorgianni et al discloses the methods and devices discussed above and further discloses in figure 7; "wherein said step of generating includes supplying a video signal to a video display." Using the Broadest reasonable interpretation the connection from the Workstation to the video display [30] is assumed to carry a video signal. This assumption is based on commonly known information in the art that connections from workstation devices to video displays typically carry video signals to their video displays.

26. Regarding claim 22, Giorgianni et al discloses the methods and devices discussed above and further discloses in column 5, lines 53-67 through column 6 lines 1-21 and figure 2; "comprising, detector means for image the output of the image output device, and test pattern. A generator means for providing a test pattern to said image output device, the test pattern including dynamic test patch, grating and fixed level areas, said test pattern generator means responsive to said detector means for adjusting an intensity level of said dynamic test patch area to match an average intensity level of said grating area." Using the broadest reasonable interpretation the color measuring device [48] would be a detector means connected to the output, this is assumed to be the case as the connection from the test images [46] is made after the test images [46] have been created. Next, a pattern generator is clearly label [40]. Lastly, the methods described wherein colorimetric values are specified, determined

and adjusted as necessary would be a method of adjusting the intensity levels of said dynamic test patches to match the average intensity level.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

27. Smith discloses; "In calibrating displays, analog information may be converted into digital information to control the display. The requirements of the analog to digital converter may be decreased by decreasing the necessary dynamic range for the analog to digital converter. This may be done by developing a first calibration signal indicative of a first plurality of pixels of the display and developing a second calibration signal indicative of a second plurality of the display. The first and second signals may be subtracted from each other and that signal may then be converted to a digital signal with reduced dynamic range requirements for the analog to digital converter."

28. Rushing discloses; "The apparatus and method of the invention provides for density consistency and uniformity in an electronic copier/printer which has an electronic writer. In the apparatus of the invention, image data for one or more test images are stored electronically in the test pattern generator 48 when a calibration program is entered by entering a process adjust input button."

29. Sakai et al discloses; "The image forming apparatus comprises a reference pattern generator 50 which generates a reference pattern signal for forming the reference pattern as a fixed image and the reference pattern as an unfixed toner image. As described later, the reference pattern generator 50 generates the reference pattern

signal in response to instructions from a development density sensor sensitivity calibration control unit 70 and an image density control unit 20, and supplies the signal to the image output unit 100."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Carbonello whose telephone number is (571) 272-0625. The examiner can normally be reached on Monday - Friday 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael J Carbonello
Examiner
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